1389/11 CLAN.

3801

2. Peronans

3 2502

2 105 Gues

2 deminars

266 305

386

2. Rass 48328

1 EESI Commount 38Kin

17.635.9

#### STATE OF ILLINOIS

DEPARTMENT OF REGISTRATION AND EDUCATION

WILLIAM H. ROBINSON DIRECTOR, SPRINGFIELD

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# Illinois State Water Survey

WATER RESOURCES BUILDING MAIL: BOX 232, URBANA, ILLINOIS 61801 6 AREA CODE 217
605 E. SPRINGFIELD, CHAMPAIGN PHONE 393-2210

WILLIAM C. ACKERMANN, CHIEF

September 21, 1970

Cerro Copper & Brass Utilities P. O. Box 681 East St. Louis, Illinois 62202

Attention: Mr. William Graff

Dear Sir:

We are enclosing a copy of the partial analysis made on a sample of water collected July 28, 1970 from a 110 1/2 foot well recently drilled for Cerro Copper and Brass in East St. Louis, Illinois.

The analysis shows this sample to be moderately mineralized but very hard and to contain considerable iron and manganese sufficient to cause staining of porcelain ware, etc. It is noted that the sample also contains considerable turbidity which appears to be due mostly to the iron content.

The hardness in this sample is sufficient to cause the formation of an exceptionally large amount of scale in boilers and hot water heaters and to consume an exceptionally large amount of soap if used for washing or laundry purposes.

Very truly yours, ILLINOIS STATE WATER SURVEY

Laurel M. Henley Associate Chemist

LMH/bb
Enclosure
cc: Luhr Bros, Inc.
W. H. Baker, Jr.

CC PAUL TANDLER CE AL SUMAC

#### STATE OF ILLINOIS

DEPARTMENT OF REGISTRATION AND EDUCATION

WILLIAM H, ROBINSON DIRECTOR, STRINGFIELD BOARD OF NATURAL RESOURCES AND CONSERVATION

## M/05 81-70 Illinoia State Water Survey

WATER RESOURCES BUILDING 605 E. SPRINGFIELD, CHAMPAIGN

MAIL: BOX 232, URBANA, ILLINOIS 61801

AREA CODE 217 PHONE 333-2210

WILLIAM C. ACKERMANN, CHIEF

September 21, 1970

### WATER ANALYSIS

Sample of water collected from a well recently drilled for Cerro Copper and Brass in East St. Louis, Illinois in St. Clair County.

Location of well: 2225'N & 2450'E of the SW corner of Section 26, T2N, R10W.

Date collected 7/28/70 • after 2 hours of

pumping at a rate of 1400 gpm. Well installed

County Number . Well Depth 110 1/2.
Township . Well No. .
Range . Source .
Section . Municipal No. .
Location .

Laboratory No. 183533.

		me/1			me/1
Turbidity	75.		Silica	•	
Color	0.		Boron	•	
Odor	0.		Fluoride	•	
Iron (Fe) mg/1	10.				
Manganese (Mn) mg/1	1.16		Nitrate		•
Ammonium (NH <sub>4</sub> ) mg/1		•	Chloride (Cl) mg/l	82.	2 . 31
Calcium (Ca) mg/1	•		Sulfate (SO4)mg/l	189.2	3 • 94
Magnesium (Mg) mg/1	•		Alkalinity * mg/l	<u>4</u> 60.	9.20
			Total Hardness*mg/l	615.	12 . 30
pН	•	•	Total Dissolved	• •	
Carbon Dioxide	•	•	Minerals**mg/1	865.	•
Methane	•	•			
Hydrogen Sulfide	•	•	* - as CaCO3	•	
Temperature (°F)	57.5		** - as Residue	*	

mg/1 = milligrams per liter me/1 = milliequivalents per liter

 $mg/1 \times .0583 = grains per gallon$ 

CL PAUL TANDLER

ILLINOIS STATE WATER SURVEY

Laurel M. Henley Associate Chemist